

What is claimed is

1. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive polymer; and

a sheet base member,

wherein a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is disposed between the transparent electrode layer made of the electroconductive polymer and the light-emitting layer.

2. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive polymer; and

a sheet base member,

wherein a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is disposed between the transparent electrode layer made of the electroconductive polymer and the light-emitting layer, and further a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is disposed between the transparent electrode layer made of the electroconductive polymer and the sheet base member.

3. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive polymer; and

a sheet base member,

wherein at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder or a synthetic rubber-base binder represented by urethane is disposed between the transparent electrode layer made of electroconductive polymer and the light-emitting layer.

4. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive polymer; and

a sheet base member,

wherein at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder or a synthetic rubber-base binder represented by urethane is disposed between the transparent electrode layer made of electroconductive polymer and the light-emitting layer, and further at least one

resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder or a synthetic rubber-base binder represented by urethane is further disposed between the transparent electrode layer made of electroconductive polymer and the sheet base member.

5. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive polymer; and

a sheet base member,

wherein a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is disposed between the transparent electrode layer made of the electroconductive polymer and the light-emitting layer, and fluoro resin is used as a binder for at least one of the dielectric layer and the light-emitting layer.

6. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive polymer; and

a sheet base member,

wherein a light-transmitting adhesive layer excellent in

adhesiveness to the electroconductive polymer is disposed between the transparent electrode layer made of the electroconductive polymer and the light-emitting layer, and a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is further disposed between the transparent electrode layer made of the electroconductive polymer and the sheet base member, and a fluoro resin is used as a binder for at least one of the dielectric layer and the light-emitting layer.

7. An EL sheet comprising:

- a counter electrode layer;
- a dielectric layer;
- a light-emitting layer;
- a transparent electrode layer made of an electroconductive polymer; and
- a sheet base member,

wherein at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder or a synthetic rubber-base binder represented by urethane is disposed between the transparent electrode layer made of electroconductive polymer and the light-emitting layer, and a fluoro resin is used as a binder for at least one of the dielectric layer and the light-emitting layer.

8. An EL sheet comprising:

- a counter electrode layer;
- a dielectric layer;

a light-emitting layer;
a transparent electrode layer made of an electroconductive polymer; and

a sheet base member,

wherein at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder or a synthetic rubber-base binder represented by urethane is disposed between the transparent electrode layer made of electroconductive polymer and the light-emitting layer, and at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder or a synthetic rubber-base binder represented by urethane is further disposed between the transparent electrode layer made of electroconductive polymer and the sheet base member, and a fluororesin is used as a binder for at least one of the dielectric layer and the light-emitting layer.

9. An EL sheet comprising:

a counter electrode layer;
a dielectric layer;
a light-emitting layer;
a transparent electrode layer made of an electroconductive polymer; and

a sheet base member,

wherein a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is disposed between

the transparent electrode layer made of the electroconductive polymer and the light-emitting layer, and a polyester-base resin or an acrylic resin is used as a binder for the light-emitting layer, and fluorine resin is used as a binder for the dielectric layer.

10. An EL sheet comprising:

- a counter electrode layer;

- a dielectric layer;

- a light-emitting layer;

- a transparent electrode layer made of an electroconductive polymer; and

- a sheet base member,

wherein a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is disposed between the transparent electrode layer made of the electroconductive polymer and the light-emitting layer, and a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is further disposed between the transparent electrode layer made of the electroconductive polymer and the sheet base member, and a polyester-base resin or an acrylic resin is used as a binder for the light-emitting layer, and fluorine resin is used as a binder for the dielectric layer.

11. An EL sheet comprising:

- a counter electrode layer;

- a dielectric layer;

- a light-emitting layer;

- a transparent electrode layer made of an electroconductive

polymer; and

a sheet base member,

wherein at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder or a synthetic rubber-base binder represented by urethane is disposed between the transparent electrode layer made of electroconductive polymer and the light-emitting layer, and a polyester-base resin or an acrylic resin is used as a binder for the light-emitting layer, and fluorine resin is used as a binder for the dielectric layer.

12. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive polymer; and

a sheet base member,

wherein at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder or a synthetic rubber-base binder represented by urethane is disposed between the transparent electrode layer made of electroconductive polymer and the light-emitting layer, and at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder or a synthetic rubber-base binder represented

by urethane is further disposed between the transparent electrode layer made of electroconductive polymer and the sheet base member, and a polyester-base resin or an acrylic resin is used as a binder for the light-emitting layer, and fluorineresin is used as a binder for the dielectric layer.

13. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive polymer; and

a sheet base member,

wherein a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is disposed between the transparent electrode layer made of the electroconductive polymer and the light-emitting layer, and an ion-exchange material is dispersed in at least one of the counter electrode layer, the dielectric layer, the light-emitting layer, the transparent electrode layer made of electroconductive polymer and the light-transmitting adhesive layer.

14. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive polymer; and

a sheet base member,

wherein a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is disposed between the transparent electrode layer made of the electroconductive polymer and the light-emitting layer, and a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is further disposed between the transparent electrode layer made of the electroconductive polymer and the sheet base member, and an ion-exchange material is dispersed in at least one of the counter electrode layer, the dielectric layer, the light-emitting layer, the transparent electrode layer made of electroconductive polymer and the light-transmitting adhesive layer.

15. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive polymer; and

a sheet base member,

wherein at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder or a synthetic rubber-base binder represented by urethane is disposed between the transparent electrode layer made of electroconductive polymer and the light-emitting layer, and an ion-exchange material is dispersed in at least one of the counter electrode layer, the

dielectric layer, the light-emitting layer, the transparent electrode layer made of electroconductive polymer and the light-transmitting adhesive layer.

16. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive polymer; and

a sheet base member,

wherein at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder or a synthetic rubber-base binder represented by urethane is disposed between the transparent electrode layer made of electroconductive polymer and the light-emitting layer, and at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder or a synthetic rubber-base binder represented by urethane is further disposed between the transparent electrode layer made of electroconductive polymer and the sheet base member, and an ion-exchange material is dispersed in at least one of the counter electrode layer, the dielectric layer, the light-emitting layer, the transparent electrode layer made of electroconductive polymer and the light-transmitting adhesive layer.

17. An EL sheet comprising:

a counter electrode layer;
a dielectric layer;
a light-emitting layer;
a transparent electrode layer made of an electroconductive polymer; and

a sheet base member,

wherein a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is disposed between the transparent electrode layer made of the electroconductive polymer and the light-emitting layer, and fluororesin is used as a binder for at least one of the dielectric layer and the light-emitting layer, and an ion-exchange material is dispersed in at least one of the counter electrode layer, the dielectric layer, the light-emitting layer, the transparent electrode layer made of electroconductive polymer and the light-transmitting adhesive layer.

18. An EL sheet comprising:

a counter electrode layer;
a dielectric layer;
a light-emitting layer;
a transparent electrode layer made of an electroconductive polymer; and

a sheet base member,

wherein a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is disposed between the transparent electrode layer made of the electroconductive polymer and the light-emitting layer, and a light-transmitting adhesive layer

excellent in adhesiveness to the electroconductive polymer is disposed between the transparent electrode layer made of the electroconductive polymer and the sheet base member, and a fluoro resin is used as a binder on at least one of the dielectric layer and the light-emitting layer, and at least either one of the counter electrode layer, the dielectric layer, the light-emitting layer, the transparent electrode layer made of electroconductive polymer or the light-transmitting adhesive layer contains an ion-exchange material dispersed therein.

19. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive polymer; and

a sheet base member,

wherein at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder or a synthetic rubber-base binder represented by urethane is disposed between the transparent electrode layer made of electroconductive polymer and the light-emitting layer, and a fluoro resin is used as a binder on at least one of the dielectric layer and the light-emitting layer, and an ion-exchange material is dispersed in at least one of the counter electrode layer, the dielectric layer, the light-emitting layer, the transparent electrode layer made of

electroconductive polymer and the light-transmitting adhesive layer.

20. An EL sheet comprising:

- a counter electrode layer;
- a dielectric layer;
- a light-emitting layer;
- a transparent electrode layer made of an electroconductive polymer; and
- a sheet base member,

wherein at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder or a synthetic rubber-base binder represented by urethane is disposed between the transparent electrode layer made of electroconductive polymer and the light-emitting layer, and at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder or a synthetic rubber-base binder represented by urethane is further disposed between the transparent electrode layer made of electroconductive polymer and the sheet base member, and a fluororesin is used as a binder for at least one of the dielectric layer and the light-emitting layer, and an ion-exchange material is dispersed in at least one of the counter electrode layer, the dielectric layer, the light-emitting layer, the transparent electrode layer made of electroconductive polymer and the light-transmitting adhesive layer.

21. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive polymer; and

a sheet base member,

wherein a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is disposed between the transparent electrode layer made of the electroconductive polymer and the light-emitting layer, and a polyester-base resin or an acrylic resin is used as a binder for the light-emitting layer, and a fluororesin is used as a binder for the dielectric layer, and an ion-exchange material is dispersed in at least one of the counter electrode layer, the dielectric layer, the light-emitting layer, the transparent electrode layer made of electroconductive polymer and the light-transmitting adhesive layer.

22. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive polymer; and

a sheet base member,

wherein a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is disposed between

the transparent electrode layer made of the electroconductive polymer and the light-emitting layer, and a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is disposed between the transparent electrode layer made of the electroconductive polymer and the sheet base member, and a polyester-base resin or an acrylic resin is used as a binder for the light-emitting layer, and a fluoro resin is used as a binder for the dielectric layer, and an ion-exchange material is dispersed in at least one of the counter electrode layer, the dielectric layer, the light-emitting layer, the transparent electrode layer made of electroconductive polymer and the light-transmitting adhesive layer.

23. An EL sheet comprising:

- a counter electrode layer;

- a dielectric layer;

- a light-emitting layer;

- a transparent electrode layer made of an electroconductive polymer; and

- a sheet base member,

wherein at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder or a synthetic rubber-base binder represented by urethane is disposed between the transparent electrode layer made of electroconductive polymer and the light-emitting layer, and a polyester-base resin or an acrylic resin is used as a binder for the light-emitting layer,

and a fluororesin is used as a binder for the dielectric layer, and an ion-exchange material is dispersed in at least one of the counter electrode layer, the dielectric layer, the light-emitting layer, the transparent electrode layer made of electroconductive polymer and the light-transmitting adhesive layer.

24. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive polymer; and

a sheet base member,

wherein at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder or a synthetic rubber-base binder represented by urethane is disposed between the transparent electrode layer made of electroconductive polymer and the light-emitting layer, and at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder or a synthetic rubber-base binder represented by urethane is further disposed between the transparent electrode layer made of electroconductive polymer and the sheet base member, and a polyester-base resin or an acrylic resin is used as a binder for the light-emitting layer, and a fluororesin is used as a binder for the dielectric layer, and an ion-exchange material is dispersed

in at least one of the counter electrode layer, the dielectric layer, the light-emitting layer, the transparent electrode layer made of electroconductive polymer and the light-transmitting adhesive layer.

25. A member for lighting a push-button switch comprising:

an EL sheet according to any one of Claims 1 to 24, a portion of the EL sheet being formed into a convex shape projecting from a rear side near the counter electrode layer to a top side near the transparent electrode layer; and

a core material having a key top shape being filled into a concave portion of the rear side of the convex shape.

26. An EL sheet according to any one of Claims 1 to 24, further comprising at least one second counter electrode layer disposed between the transparent electrode layer and the counter electrode layer, the second counter electrode layer comprising a synthetic resin and a conductive filler which comprises nickel or carbon as a main conductive ingredient and is dispersed in the synthetic resin, the second counter electrode layer being disposed in contact with the counter electrode layer.

27. An EL sheet according to any one of Claims 1 to 24, further comprising at least one second dielectric layer disposed between the transparent electrode layer and the counter electrode layer, the second dielectric layer comprising a synthetic resin and a dielectric substance having a dielectric constant lower than that of a dielectric substance used in the dielectric layer, the dielectric layer being disposed in contact with the dielectric layer.

28. An EL sheet according to any one of Claims 1 to 24, further comprising:

at least one second counter electrode layer disposed between the transparent electrode layer and the counter electrode layer, the second counter electrode layer comprising a synthetic resin and a conductive filler which comprises nickel or carbon as a main conductive ingredient and is dispersed in the synthetic resin, the second counter electrode layer being disposed in contact with the counter electrode layer, and

at least one second dielectric layer disposed between the transparent electrode layer and the counter electrode layer, the second dielectric layer comprising a synthetic resin and a dielectric substance having a dielectric constant lower than that of a dielectric substance used in the dielectric layer, the dielectric layer being disposed in contact with the dielectric layer.

29. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive layer; and

a sheet base member,

wherein a binder for the light-emitting layer is different from that of the dielectric layer and excellent in adhesiveness to the electroconductive polymer.

30. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive layer; and

a sheet base member,

wherein a binder for the light-emitting layer is different from that of the dielectric layer and excellent in adhesiveness to the electroconductive polymer, and a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is disposed between the transparent electrode layer made of the electroconductive polymer and the sheet base member.

31. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive layer; and

a sheet base member,

wherein a binder for the light-emitting layer is different from that of the dielectric layer and is excellent in adhesiveness to the electroconductive polymer, and the binder for the light-emitting layer is at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder,

or a synthetic rubber-base binder represented by urethane.

32. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive layer; and

a sheet base member,

wherein a binder for the light-emitting layer is different from that of the dielectric layer and is excellent in adhesiveness to the electroconductive polymer, the binder for the light-emitting layer is at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder, or a synthetic rubber-base binder represented by urethane, and

a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is disposed between the transparent electrode layer made of the electroconductive polymer and the sheet base member.

33. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive layer; and

a sheet base member,

wherein a binder for the light-emitting layer is different from that of the dielectric layer and excellent in adhesiveness to the electroconductive polymer, and a fluororesin is used as a binder for the dielectric layer.

34. An EL sheet comprising:

- a counter electrode layer;
- a dielectric layer;
- a light-emitting layer;
- a transparent electrode layer made of an electroconductive layer; and
- a sheet base member,

wherein a binder for the light-emitting layer is different from that of the dielectric layer and excellent in adhesiveness to the electroconductive polymer, a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is disposed between the transparent electrode layer made of the electroconductive polymer and the sheet base member, and a fluororesin is used as a binder for the dielectric layer.

35. An EL sheet comprising:

- a counter electrode layer;
- a dielectric layer;
- a light-emitting layer;
- a transparent electrode layer made of an electroconductive layer; and
- a sheet base member,

wherein a binder for the light-emitting layer is different from

that of the dielectric layer and being excellent in adhesiveness with the electroconductive polymer, the binder for the light-emitting layer is at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder, or a synthetic rubber-base binder represented by urethane, and a fluoro resin is used as a binder for the dielectric layer.

36. An EL sheet comprising:

- a counter electrode layer;

- a dielectric layer;

- a light-emitting layer;

- a transparent electrode layer made of an electroconductive layer; and

- a sheet base member,

wherein a binder for the light-emitting layer is different from that of the dielectric layer and is excellent in adhesiveness with the electroconductive polymer, the binder for the light-emitting layer is at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder, or a synthetic rubber-base binder represented by urethane polymer, and

a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is disposed between the transparent electrode layer made of the electroconductive polymer and the sheet base member, and a fluoro resin is used as a binder for the dielectric

layer.

37. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive layer; and

a sheet base member,

wherein a binder for the light-emitting layer is different from that of the dielectric layer and excellent in adhesiveness to the electroconductive polymer, and an ion-exchange material is dispersed in at least one of the counter electrode layer, the dielectric layer, the light-emitting layer and the transparent electrode layer made of electroconductive polymer.

38. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive layer; and

a sheet base member,

wherein a binder for the light-emitting layer is different from that of the dielectric layer and excellent in adhesiveness to the electroconductive polymer, a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is disposed between the transparent electrode layer made of the

electroconductive polymer and the sheet base member, and an ion-exchange material is dispersed in at least one of the counter electrode, the dielectric layer, the light-emitting layer, the transparent electrode layer made of electroconductive polymer and the light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer.

39. An EL sheet comprising:

a counter electrode layer;

a dielectric layer;

a light-emitting layer;

a transparent electrode layer made of an electroconductive layer; and

a sheet base member,

wherein a binder for the light-emitting layer is different from that of the dielectric layer and being excellent in adhesiveness with the electroconductive polymer, the binder for the light-emitting layer is at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder, or a synthetic rubber-base binder represented by urethane, and an ion-exchange material is dispersed in at least one of the counter electrode, the dielectric layer, the light-emitting layer, the transparent electrode layer made of electroconductive polymer and the light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer.

40. An EL sheet comprising:

a counter electrode layer;
a dielectric layer;
a light-emitting layer;
a transparent electrode layer made of an electroconductive layer; and

a sheet base member,

wherein a binder for the light-emitting layer is different from that of the dielectric layer and is excellent in adhesiveness with the electroconductive polymer, the binder for the light-emitting layer is at least one resin-base binder selected from a group consisting of a polyester-base binder, an acrylic binder, a cyanoacrylate-base binder and an ethylene-vinyl acetate-base binder, or a synthetic rubber-base binder represented by urethane, and

a light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer is disposed between the transparent electrode layer made of the electroconductive polymer and the sheet base member, and an ion-exchange material is dispersed in at least one of the counter electrode, the dielectric layer, the light-emitting layer, the transparent electrode layer made of electroconductive polymer and the light-transmitting adhesive layer excellent in adhesiveness to the electroconductive polymer.

41. A member for lighting a push-button switch comprises:

an EL sheet according to any one of Claims 29 to 40, a portion of the EL sheet being formed into a convex shape protruding from a rear side near the counter electrode layer to a top side near the transparent electrode layer; and

a core material having at least a shape corresponding to a key top shape is filled into a rear side of the convex shape.

42. An EL sheet according to any one of Claims 29 to 40, further comprising at least one second counter electrode layer disposed between the transparent electrode layer and the counter electrode layer, the second counter electrode layer comprising a synthetic resin and a conductive filler which comprises nickel or carbon as a main conductive ingredient and is dispersed in the synthetic resin, the second counter electrode layer being disposed in contact with the counter electrode layer.

43. An EL sheet according to any one of Claims 29 to 40, further comprises at least one second dielectric layer disposed between the transparent electrode layer and the counter electrode layer, the second dielectric layer comprising a synthetic resin and a dielectric substance having a dielectric constant lower than that of a dielectric substance used in the dielectric layer, the dielectric layer being disposed in contact with the dielectric layer.

44. An EL sheet according to any one of Claims 29 to 40, further comprises:

at least one second counter electrode layer disposed between the transparent electrode layer and the counter electrode layer, the second counter electrode layer comprising a synthetic resin and a conductive filler which comprises nickel or carbon as a main conductive ingredient and is dispersed in the synthetic resin, the second counter electrode layer being disposed in contact with the counter electrode layer, and

at least one second dielectric layer disposed between the transparent electrode layer and the counter electrode layer, the second dielectric layer comprising a synthetic resin and a dielectric substance having a dielectric constant lower than that of a dielectric substance used in the dielectric layer, the dielectric layer being disposed in contact with the dielectric layer.